Listing of Claims:

- 1. 81. (Cancelled)
- 82. (Withdrawn) An *in vitro* composition comprising an enriched and expanded population of proliferating dendritic cell precursors.
- 83. (Cancelled)
- 84. (Previously Presented) The composition according to claim 101, wherein the dendritic cell precursors are human.
- 85. (Withdrawn) The composition of dendritic cell precursors according to claim 84, wherein the dendritic cell precursors are obtained from blood.
- 86. (Withdrawn) The composition of dendritic cell precursors according to claim 84 wherein the dendritic cell precursors are obtained from bone marrow.
- 87. (Withdrawn) The composition according to claim 83 wherein the antigen is produced by tumor cells.
- 88. (Withdrawn) The composition according to claim 83 wherein the antigen is an immunoglobulin.
- 89. (Previously Presented) The composition according to claim 101, wherein the antigen is a microorganism.
- 90. (Withdrawn) The composition according to claim 83 wherein the antigen is a virus.
- 91. (Previously Presented) The composition according to claim 89, wherein the antigen is a polypeptide.
- 92. (Previously Presented) The composition according to claim 89, wherein the antigen is a peptide.

- 93. (Withdrawn) The composition according to claim 83 wherein the antigen is a self-protein or auto-antigen.
- 94. (Previously Presented) The composition according to claim 101, wherein the antigen is a mycobacteria.
- 95. (Previously Presented) The composition according to claim 94, wherein the mycobacteria is BCG.
- 96. (Withdrawn) A composition comprising an enriched population of human dendritic cells and a pharmaceutically acceptable carrier.
- 97. (Cancelled)
- 98. (Withdrawn) A mixed culture of activated dendritic cells and T cells.
- 99. (Previously Presented) The pharmaceutical composition according to claim 116, wherein the antigen-activated dendritic cells express an amount of the modified antigen to provide between about 1 to 100 micrograms of the modified antigen in said pharmaceutical composition.
- 100. (Withdrawn) A pharmaceutical composition comprising a dendritic cell modified antigen wherein a substance to be modified is exposed to a culture of isolated dendritic cell precursors and whereby the substance is modified by the dendritic cells to produce modified antigen.
- 101. (Previously Presented) An *in vitro* composition comprising an enriched and expanded population of antigen-activated dendritic cells presenting modified antigen derived from an *in vitro* culture of an enriched and expanded population of proliferating dendritic cell precursors by a method comprising:

providing a tissue source comprising dendritic cell precursors;

- optionally treating the tissue source comprising dendritic cell precursors to increase the proportion of dendritic cell precursors;
- culturing the tissue source on a substrate in a culture medium comprising GM-CSF to obtain cell clusters;

subculturing the cell clusters to produce cell aggregates comprising proliferating dendritic cell precursors; and

subculturing the cell aggregates at least one time to enrich the proportion of dendritic cell precursors;

wherein the dendritic cell precursors are cultured *in vitro* in the presence of an antigen for a time sufficient to allow the antigen to be modified and presented.

- 102. (Withdrawn) The composition of proliferating dendritic cell precursors according to claim 82 further comprising GM-CSF.
- 103. (Previously Presented) The pharmaceutical composition according to claim 116, wherein the pharmaceutical composition comprises from about $1x10^6$ to $1x10^7$ antigen-activated dendritic cells.
- 104. (Previously Presented) The composition according to claim 101, wherein the tissue source is blood.
- 105. (Previously Presented) The composition according to claim 101, wherein the tissue source is bone marrow.
- 106. (Previously Presented) The composition according to claim 101, wherein GM-CSF is present in the culture medium at a concentration of about 1-1000 U/ml.
- 107. (Previously Presented) The composition according to claim 104, wherein the concentration of GM-CSF in the culture medium is about 30-100 U/ml.
- 108. (Previously Presented) The composition according to claim 105, wherein the concentration of GM-CSF in the culture medium is about 500-1000 U/ml.
- 109. (Previously Presented) The composition according to claim 101, wherein the cell aggregates are subcultured from about one to five times.

- 110. (Previously Presented) The composition according to claim 101, wherein the cell aggregates are subcultured about every 3 to 30 days.
- 111. (Previously Presented) The composition according to claim 101, wherein the culture medium is selected from the group consisting of RPMI 1640, DMEM, and α -MEM, and wherein the culture medium is supplemented with serum.
- 112. (Previously Presented) The composition according to claim 104, wherein the tissue source is treated to remove red blood cells.
- 113. (Previously Presented) The composition according to claim 105, wherein the tissue source is treated to remove B cells and granulocytes.
- 114. (Previously Presented) The composition according to claim 101, wherein said antigen is presented by the dendritic cells on MHC class I or MHC class II.
- 115. (Previously Presented) The composition according to claim 101, wherein said modified antigen is presented by the dendritic cells on MHC class I and MHC class II.
- 116. (Previously Presented) A pharmaceutical composition comprising a therapeutically effective amount of the composition according to claim 101.
- 117. (Previously Presented) The composition according to claim 94, wherein the mycobacteria is a tuberculosis bacteria.
- 118. (Previously Presented) The composition according to claim 101, wherein the dendritic cell precursors are cultured in the presence of antigen for between about 1-48 hours.
- 119. (Previously Presented) The composition according to claim 118, wherein the dendritic cell precursors are cultured in the presence of antigen for about 20 hours.
- 120. (Previously Presented) An *in vitro* composition comprising an enriched and expanded population of antigen-activated dendritic cells, wherein said antigen-activated dendritic cells are derived from a an *in vitro* culture of a population of enriched and expanded proliferating

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precursor cells which were contacted *in vitro* with antigen in the presence of GM-CSF for a sufficient time for antigen modification and presentation to occur.